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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,554	10/01/2003	Sergio Zambelli	38138/GM/ch	5734
7590 02/23/2006 MODIANO & ASSOCIATI Via Meravigli, 16 Milano, 20123 ITALY			EXAMINER KATCHEVES, BASIL S	
			ART UNIT 3635	PAPER NUMBER

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,554

Applicant(s)

ZAMBELLI ET AL.

Examiner

Basil Katcheves

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-31 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Regarding the incorporation of the foreign application on page 13 of the specification, the incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte*

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Wu, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "buildings", and the claim also recites "particularly multistory buildings" which is the narrower statement of the range/limitation.

Regarding claim 1, the phrase "the hinge type" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed, thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d). The specification does not provide support for the structure of the "hinge type".

Claim Rejections - 35 USC § 102

Claims 1-4, 6, 7, 9-15, 17, 18, 20-22, 29 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,744,200 to Rice as in the previous office action.

Regarding claim 1, Rice discloses a device which connects beams to columns (fig. 7) comprising a first connection means (28) adapted to provide a

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hinge coupling and a second connection means (27) which is tensioned and passes through the beam and connected to the columns. Also, the second connection means is independent from the first connection means and inherently capable of being connectable with respect to the first connection means.

Regarding claim 2, Rice discloses the tension element as passing through the beam with play (column 3, lines 34-36).

Regarding claim 3, Rice discloses the tension element as passing through a tubular sleeve (column 29-33).

Regarding claim 4, Rice discloses the tension member as protruding from the beam (fig. 7).

Regarding claim 6, Rice discloses the tensioned member as being made of multiple elements (column 3, 23-26 & fig. 14: 37).

Regarding claim 7, Rice discloses a tubular sleeve being encased in the concrete, thus inherently rigid (column 3, line 30).

Regarding claim 9, Rice discloses the tendon as being bar like (fig. 14: 37).

Regarding claim 10, Rice discloses the tendon as being a cable (fig. 14: 37).

Regarding claim 11, Rice discloses the beam as inherently capable of being prestressed.

Regarding claim 12, Rice discloses the tendon as being formed into one unitary member.

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Regarding claim 13, Rice discloses the tendon as being made of multiple segments (fig. 14: see strands of cable 37 & fig. 16, multiple cables 9 connected together).

Regarding claim 14, Rice discloses steel cable strands as being inherently rigid and flexible to make up a cable.

Regarding claim 15, Rice discloses the protruding ends of the tendons as connected to and above (29) the first connecting means (fig. 7).

Regarding claim 17, Rice discloses the first connection means as having two regions (fig. 7: 34, 29 & 28) for connecting the beam, the regions spaced horizontally transversely to the longitudinal extension of the beam.

Regarding claim 18, Rice discloses the column as having a cavity (34) for accommodating the bracket.

Regarding claim 20, Rice discloses the bracket (29, 28) as protruding from the column and securing the beam.

Regarding claim 21, Rice discloses the bracket as being inclined in a generally upward direction (fig. 7: 29 and fig. 10, see upward orientation).

Regarding claim 22, Rice discloses the bracket as being bolted to the beam (fig. 7: 31 & fig. 9).

Regarding claim 29, Rice discloses a box like body (fig. 7: 34, fig. 9: 30) and tubular like body are rigidly connected together.

Regarding claim 31, Rice discloses the beam as having a lower recess for holding the bracket (fig. 7: recess where the number 29 is).

Claim Rejections - 35 USC § 103

Claims 5, 16, 23-28, and 30, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,744,200 to Rice in view of U.S. Patent No. 4,644,978 to Bonasso.

Regarding claims 5 and 23, Rice does not disclose the tension member as being upwardly concave. Bonasso discloses a concrete structure supported by tensioned members being upwardly concave (fig. 14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rice by using upwardly concave tendons, as disclosed by Bonasso, in order to better support the weight of the structure.

Regarding claims 16 and 24, Rice discloses an auxillary tendon (fig. 15) but does not disclose the tendons in a downward concave shape or a broken line shape. Bonasso discloses tendons having a downward concave shape (fig. 14) and a broken line shape (fig. 25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rice by using the tendon shapes as disclosed by Bonasso, in order to help improve the strength of the structure.

Regarding claim 25, Rice discloses a passage (see sleeve, fig. 7) for connecting the tendons (fig. 15) to the column.

Regarding claim 26, Rice discloses the tension element as passing through a tubular sleeve (column 29-33).

Regarding claim 27, Rice discloses a means for tensioning the tendon (fig. 7: 30).

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Regarding claim 28, Rice discloses the cables as being comprised of threaded ends (fig. 7: see nut 31, fig. 16: 11, fig. 17: 39) which abut the columns to tighten the tendons.

Regarding claim 30, Rice discloses the tubular sleeve inside the beam as connected to the beam frame (fig. 7: 32).

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,744,200 to Rice in view of U.S. Patent No. 6,659,135 to Sorkin.

Regarding claim 8, Rice does not specifically disclose the tubular sleeve as being flexible. Sorkin discloses a tubular sleeve for receiving a tendon in concrete made of a flexible material (abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rice by using the polymeric sleeves, as disclosed by Sorkin, in order to reduce costs of the structure and improve weather resistance.

Claim Objections

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 8/29/05 have been fully considered but they are not persuasive. Applicant argues that the connection means of the prior art is completely different from that of the instant application. The applicant also argues that use of the prior art connection means is different than that of the instant application. However, the structural claim limitations of the instant application are broad and, structurally, they are met by the prior art. Regarding the use, the applicant should note that what is claimed is functional language. If the prior art meets the same structural limitations, it may be capable of use in such a manner. Applicant should note that terms such as "adapted to" are merely functional and not positively claimed. The prior art also discloses the second means as passing through the beam, as noted in the rejection above. Applicant argues that the second means does not pass through the pillar. However, the claim states that it passes through the beam. Applicant also argues the "hinge type" limitation. The applicant should note that "hinge type" is construed as something vaguely being a hinge. A new rejection is found above regarding the limitations of the "hinge type".

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Basil Katcheves whose telephone number is (571) 272-6846. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman, can be reached at (571) 272-6842.

A handwritten signature in black ink, appearing to read 'Basil Katcheves', with a stylized, cursive script.

Basil Katcheves

BK

2/9/06

Examiner AU 3635